

SEQUENCE LISTING

SEQ ID NO: 1

ABH1 cDNA sequence:

5 AAAGAGACGAACTGAAGAAAAACCTCTCGGAAGAAGATGAGCAATTGGAAAAC
TCTTCTCCTTCGCATCGGCGAAAAGGGACCTGAGTACGGCACTTCCTCCGACTAC
AAAGACCACATCGAGACTTGTTCGGTGTCAATTCGTAGAGAAATCGAGCGTTCTG
GAGATCAAGTTTTGCCTTTTCTACTACAATGTGCTGAACAATTGCCTCATAAGATT
CCTTTGTATGGGACTTTGATTGGTTTGTGAACTTGGAGAATGAAGATTTTGTCCA
GAAGCTAGTAGAAAGTGTCCACGCTAATTTCCAGGTCGCTTTAGATTCTGGCAAC
10 TGCAACAGTATCCGTATATTGCTTCGCTTTATGACTTCCCTGTTGTGCAGTAAGGT
TATTCAACCTGCTTCTTTGATTGTCGTCTTCGAAACATTGCTATCATCTGCTGCCA
CTACTGTGGATGAAGAGAAAGGAAATCCATCATGGCAGCCACAAGCTGACTTTT
ACGTTATATGCATCTTGTCCAGCCTCCCGTGGGGAGGATCAGAACTCGCTGAGCA
AGTTCCTGATGAGATTGAAAGAGTGTTAGTTGGGATACAAGCTTATTTGAGCATC
15 CGAAAGAATTCTTCCACCTCTGGGTAAACTTTTTTCAACAACGGAGAATTTGAAA
GCAGCCTTGCAGAGAAGGATTTTCGTGGAGGATCTATTGGATCGAATTCAGTCTCT
GGCTTCCAATGGATGGAACTTGAAAGCGTACCTAGGCCTCATCTCTCGTTTGAA
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AACCGAGTCCACCTTCTGATCATTCGAGGGCATAACAGTGGCAAGCAAAAGCATG
20 ATGCATTGACGAGATATCCCCAGAGAATTCGTAGGTTGAATATATTTCCAGCTAA
TAAAATGGAGGATGTACAACCAATTGATCGTTTTGTCTGCGTGGAGGAGTATTTGCTG
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ATACTGCTGCTACCCCAGCCACCATTCAAGACTCTTTATTATACACTCGTGATTAT
25 GGATCTTTGTAAGGCTCTTCCGGGTGCCTTTTCTGCTGTTGTTGCTGGCGCTGTTT
GTGCACTATTTGAGAAAATATCCGACTTAGACATGGAATCCAGGACGCGTCTTAT
CCTCTGGTTTTTCTCACCCTTATCCAACCTCCAATTCATCTGGCCGTGGGAAGAGT
GGGCTTTTGTGTTGGATCTTCCCAAGTGGGCCCTAAGCGTGTATTTGTTTCAGGA
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30 GAGAATGCGACTGCCCTAGAAGAATTACTTCCTCCAAAAGCTGGTCCGAATTTTA
TGTATTCCTTGAAGAAGGTAAAGAGAAAACAGAAGAACAGCAATTGTCAGCCG
AATTGAGCAGGAAGGTCAAGGAAAAACAAACCGCACGTGACATGATAGTGTGG
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TACAGACCTTACTTGACATCGGATCAAAAAGTTTCACTCATTGGTCACTGTCCT
35 GGAGCGATATGGCCAAGTATTTTCAAAGCTTTGTCCTGATAACGATAAGCAGGTG
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40 AAAGATATATCAAACATTACGAAAAATGTTTTGGTTGCTGAGAAAGCTTCAGCCA
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45 AGTTTCTTAGGTGTACTGAAGGAACGGCTCCAGATCCAATAAGTGAGATCA
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50 GATGTGCATCCTCTCTTCTCCAAGCCATATCTTCTGCACTTCAATTCCCATTACA

TTAATCTTCCTCTTTCAATCTCAATCAAACCTGTCTCTTTTGTGTTTTTGTATGAGA
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 TTAACCTTTAAAAAAAAAAAAAAAAAAAA

5 SEQ ID NO: 2

ABH1 Protein sequence

MSNWKTL LLRIG EKGPEYGTSSDYKDHIETCFGVIRREIERSGDQVLPFLLQCAEQLP
 HKIPLYGT LIGLLNLENE DFVQKL VESVHANFQVALDSGNCNSIRILLRFMTSLLCSK
 VIQPASLIVVFETLLSSAATTVD EEEKGNPSWQPQADFYVICILSSLPWGGSELAEQVPD
 10 EIERVLVGIQAYLSIRKNSSTSGLNFFHNGEFESSLA EKDFVEDLLDRIQSLASNGWKL
 ESVPRPHLSFEAQLVAGKFHEL RPIKCM EQSPSPSDHSRAYSGKQKHDALTRYPQRIR
 RLNIFPANKMEDVQPIDRFVVEEYLLDVL FYLNGCRKECASYMANLPVTFRYEYLM
 AETLFSQILLLPQPPFKTLYYTLVIMDLCKALPGAFPAVVAGAVRALFEKISDLDMES
 RTRLILWFSHLSNFQFIWPWEEWAFVLDLPKWAPKRVFVQEILQREVRLSYWDKIK
 15 QSIENATALEELLPPKAGPNFMY SLEEGKEKTEEQQLSAELSRKVKEKQTARDMIVW
 IEETIYPVHGFEVTLTIVVQTL LDIGSKSFTHLVTVLERYGQVFSKLCPDNDKQVMLLS
 QVSTYWKNNVQMTAV AIDRMMGYRLVSNQAIVRWVFS PENVDQFHVSDQPWEILG
 NALNKTYNRISDLRKDISNITKNVLVAEKASANARVELEAAESKLSLVEGEPVLGENP
 AKMKRLKSTVEKTGEAELSLRESLEAKEALLNRALSETEVLLLLL FQSFLGVLKERLP
 20 DPTKVRSVQDLKSIGAEDDKPSAMDVDSENGNPKKSCEVGEREQWCLSTLGYLTAF
 TRQYASEIWPHEMEKLESEVFSGEDVHPLFLQAISSALQFPLH

SEQ ID NO: 3

1250 bp *ABH1* genomic sequence containing the promoter

GAAAGGGAAACTCAGCCAGCCTCGGTAAAAACATCTTCTTCTGTTTGCCTTTCTC
 TTGTAATGATCTCACATCATGTTTGATGGAATCTAAGACTTTGGATGGGCATCTA
 TTTTATCATGAGTTAATCTTTGACACAAGAAACATCTCTTTCTAATCTGTTTCATA
 GTCAAAAGAAATTGTGACAACTTCACCAGATGGAAGTTGTACCTCTTTATTGTTA
 CGAAGTGGATTGGCGACATGAAACAAAACCCGAACACGAACATAGTCCTGAAAC
 30 TGTGATTTTTTCAGAGTCCATCACCACCTCCTTCACTTCCCCAATACAGCTCGTGAT
 CTCTTTAATTGTGTCCTGAGTATAATAGTTCACCGAAATATTCCTCACTCGACCCC
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 TCTTCTCAGATTTGAAGAAAAATTGGAATCGATCCTTTGAGAGAGCAACACCTC
 35 TAACCCGAGAAGAAATTCTCCAAATTCGTGGCATATCTAATATCCAATTAGACAT
 CCTTTGATTCTCTAGATTCAAAAACCTACCCAACTAACGACAGTTGTTTCTGTAA
 TTGAACAAAAGCGCGGTTGATCAGAAAGAATCAGAGGCTTATTGTCTTAAATCG
 ACATATTCTGAATGGCTTTATCCAGCTCCATGATGAGATCCTGATAGAGAGTAAA
 CAACTTTCCCGAACTCGTCAAACCTGATTTGCAGGAAACAACTCCAAGAGAAA
 40 AAACAGTGAAGAAATCCGAGTAATTCAGATGATAACCAACACAGA ACTGAGAAT
 CACAAAGCAA ACTCTCGTAACAGAGAAAGAGTCAGAACTACCAAAAATCCGAGG
 AAGAAAACAACAATTTAGACCGGACCGAACACGTAAATATTTCTGGTAGAAGCT
 CCGTTCAGAATAGAACACCTGAGAGAAAAGTCTTTAGGCTCCAAATTA ACTGGG
 ACGACTATTGTTTTAACGGCTAGTTTCAGCTACTAAGAGAAAGAAGAGAGAGAA
 45 AA ACTTTTTGTCAA ACTCTTTTTGTGAACTCCTTTTCTTAGATGACAACACTTATG
 AGAAAAA AAAAAAAAAAATTAGTTTTGACGAGACACGGACATAAAAAAAAAAAC
 TAGGGCAGAGTGACTGATACCAAAGGAGAAACAACAAAGAGACG

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